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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,299	11/28/2001	Kenzo Kasahara	KON-1686	4016

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MUSERLIAN AND LUCAS AND MERCANTI, LLP
600 THIRD AVENUE
NEW YORK, NY 10016

EXAMINER

SHEWAREGED, BETELHEM

ART UNIT PAPER NUMBER

1774

DATE MAILED: 09/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996,299

Applicant(s)

KASAHARA, KENZO

Examiner

Betelhem Shewareged

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,7 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) 14-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,20 and 21 is/are rejected.
- 7) ☒ Claim(s) 4 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's response filed on 07/08/2003 has been fully considered. The claim objection, the 35 U.S.C. 112 rejection, and the 35 U.S.C. 102 rejections have been withdrawn in view of Applicant's amendments.
2. Claims 1, 3, 4 and 7 are amended, claims 5 and 8-13 are canceled, claims 20 and 21 are added, and thus claims 1-4, 6, 7 and 14-21 are pending. (NOTE: Claims 14-19 are still withdrawn from consideration because they are directed to non-elected invention).

Election/Restrictions

3. Applicant's election without traverse of Group I, claims 1-4, 6, 7, 20 and 21 in Paper No. 4 is acknowledged.

Claim Rejections - 35 USC § 103

4. Claims 1-3, 6, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashida et al. (US 6,357,871 B1).

Response to Arguments

5. Applicant argument is based on that Ashida does not teach the claimed thickness. This argument is not persuasive because Applicant's argument is **only** directed to the Examples discloses. The coating amount of the organic particle layer

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and the coating amount of the ink absorbing layers are not limited to the coating amounts disclosed in the examples. The coating amount of the organic particles layer is preferably 1-50 g/m² (col. 4, line 53), and the coating amount of the ink absorbing layer is preferably 3-40 g/m² (col. 8, line 44). Keeping the coating amount of the organic particles layer is smaller than the ink absorbing layer is taught in the Examples. Thus it would have been obvious to a person of ordinary skill in the art to optimize the coating amount or the thickness of the organic particles layer so as to enhance the water resistance of the layer while keeping good ink permeability of the layer (col. 4, line 62 to col. 5, line 8). Furthermore, since the specification fails to show the criticality of the thickness of the first porous layer and the second porous layer, it would be obvious to adjust the thickness of the layers of the prior art.

Applicant further argues that Formulae (1) and (2) define the properties of the claimed ink jet recording sheet, thus they are positive limitations. The argument is not persuasive because in view of the specification and the claims, Formulae (1) and (2) define the properties of an ink jet recording sheet **having** an aqueous solution comprising a water-soluble alcohol-type organic solvent having an SP value in an range of from 18.414 to 30.69 (MPa)^{1/2} and a boiling point of not less than 120 degree C in an amount of from 10 to 40% by weight, provided on the sheet in an amount of 20 ml/m². The claimed invention is directed to an ink jet recording sheet **without** the aqueous solution. The aqueous solution may or may not be applied on the recording sheet. If the claimed recording sheet already contains the aqueous solution on the surface of the first porous layer, the aqueous solution in claims 1, 3, 6 and 7 would have been

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searched, however, since the aqueous solution is not contained in the claimed recording sheet the aqueous solution is not searched.

For the above reasons, claims 1-3 and 6 stand rejected and claims 20 and 21 are also included in the rejection.

Allowable Subject Matter

6. Claims 4 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Ashida fails to teach or suggest the claimed mean primary particle diameter of the organic particles.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 703-305-0389. The examiner can normally be reached on Mon.-Thur. 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on 703-308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5408 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

BS BS
September 27, 2003.

